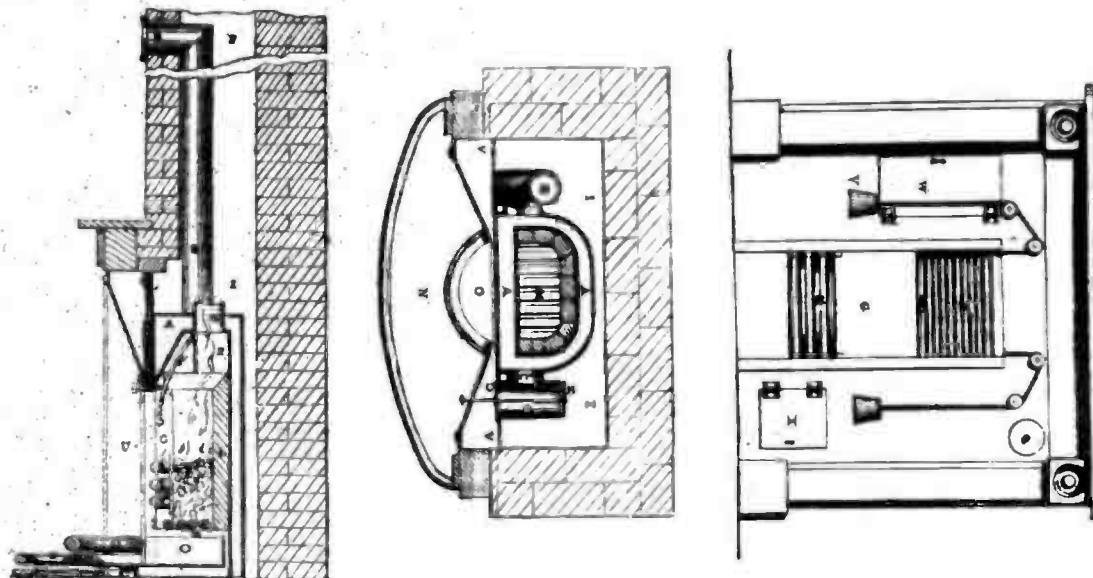


A NEW VENTILATING STOVE.



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To those who have paid attention to the subject of ventilation and heating, it must appear remarkable, that in a country like England, in which the sciences have reached an extraordinary degree of development, and in which individual comfort is so much considered and ministered to, there should generally be but little care displayed in respect to one of the most fruitful sources of disordered public health, viz. the impurity of the atmosphere of dwellings. Independently of the health-question, it is equally strange that a people, who are distinguished by the cleanliness of their habits, should be so indifferent to the inconvenience and annoyance of being surrounded by an atmosphere loaded with particles of soot. We must remember that this impurity of the atmosphere is not only a source of inconvenience (it begrimes the person, the clothes, public buildings, and monuments, and indeed everything exposed to its influence), but it is also destructive to delicate furniture, gildings, decorations, and pictures, and likewise to merchandise in the shops.

The noxious influences arising from imperfect ventilation are not confined to London, they are experienced at certain seasons of the year in all the large towns of England to a greater or less extent: how does it happen that the cause has remained unremedied?

Amongst the most recent attempts to heat and ventilate a room by the united effects of radiation from the fire and the rarefaction of the air, is that of Mr. Noiraain, of whose stove we give some illustrations. This is the inventor's own description of it:—

When the calorific rays are concentrated in an iron chamber, F, open at G for the emission of heat, and at H for the escape of the smoke; when the opening of the stove G, is subordinate to the proportions of the passage I of the chimney; when the iron chamber F is furnished with refracting bricks L, and where the opening G is provided with a draught plate K, by means of which the intensity of the fire can be increased, the condensation of the smoke is quite impossible, while the fire becomes so intense that the greatest part of the smoke is burned.

A receptacle, A, is obtained by fixing the iron chamber F in a second iron chamber, when a tube, B, is adapted to the left of the last chamber, the orifice of which, B', opens into the

receptacle A, and the orifice B into the room at the upper part of the flue I, and when afterwards a second tube, C, is adapted to its right side, the tube having three orifices, the first of which, C', also opens into the receptacle A, the second, E, communicates with the chimney I, and the third, D, opens on the iron plate V into the apartment: finally, when the orifices D and E are furnished with valves, so constructed that one of them closes when the other is opened, an apartment can be warmed and ventilated in a perfect manner.

In fact, if it be supposed that there is a fire in the chamber F, and that the air is rarefied in the receptacle A, and that the valve E is open, and D shut, the atmospheric pressure will be exerted in the rarefied receptacle through the orifice B, and the hot air will pass away up the due of the chimney: if, however, the valve D be open, and E shut, the atmospheric pressure will then be exerted through the orifice D, and the hot air will pass into the apartment through the orifice B.

By the first method the apartment is warmed from the lower part of the chimney, and ventilated from above and below; and by the second, on the contrary, the apartment is warmed from both above and below, and ventilated from the lower part.

Thus, by means of two valves, D and E, an ascending current of hot air, or a descending current of cold air may be obtained at pleasure in the same tube or canal B.

M—shows the grating.

N—sunder.

O—the ash-pan.

P—register to regulate the disengagement of heat from the chimney.

U—A panel ornamenting the chimney opening, like a door.

V—an iron plate used to close completely the opening of the chimney.

W—Door for sweeping the chimney.

X—Door for removing the soot.

LEICESTER.—The new market-house, Leicester, was about to be lighted with gas: the fittings were got ready: all other arrangements were made; when it was discovered that the "mains" had been forgotten! [Our "P. D." inquires if we have not written "Leicester" for "Leinster."]—*Gateshead Observer*.—Rather a blundering mode of procedure certainly.

NOTES IN THE PROVINCES.

Cumbræ.—A new college and church have been recently erected by the Hon. G. F. Boyle, brother to the Earl of Glasgow, on the island of Cumbræ, in the episcopal diocese of Argyll and the Isles. The college buildings are situated on the shores of the Firth of Clyde, on an eminence rising about 200 feet above Mullport Bay; and as the ground on which they stand is a steep declivity, it is terraced, broad flights of steps giving access from one terrace to another. At the foot of the terraces a drive leads through the college grounds, which cover about 20 acres, to a suitable entrance gate, surmounted by a cross. The institution is divided into senior and choristers' departments, the former being occupied by the provost, three clergymen, and three elder and six younger students, and the latter is intended as a residence for the sub-chorister and twelve choristers, who are to live under his superintendence. The public rooms are a library, school, hall, and oratory, the last forming a connecting link between the house apartments and the chapel. We learn from a local paper, that the chapel is of the second-pointed style, and consists of a nave 45 feet long, and a chancel 32 feet deep. An arch at the west end of the chancel, or choir, contains the organ, which is separated by an ornamental partition of iron-work from the singers. The pipes of the organ, and the roof of the chancel are also richly ornamented. The altar-window is by Messrs. Hardman, and comprises meditation half-lengths of the four Evangelists, St. Augustine, as the patron of learning, and St. Columba, as indicating the missionary character of the college. In the tracery is represented our Lord in glory, supported by St. Peter and St. Paul; and in the head of the centre light is the dove, as the emblem of the Holy Spirit, to whom the chapel is dedicated. Another stained window, by Wallis, is inserted in the oratory. On the south side of the altar the chapel is furnished with sedilia, a piscina, and a prothesis. The sacrum is in two stages, one or two steps above the choir, which itself is three steps above the nave, and is entered through a stone screen, surmounted by a carved stone cross, and closed by a pair of brassen gates. The tower is furnished with a peal of bells. The chapel, though not yet consecrated, was opened on Whitunday for Divine Service, under license from the Bishop in Argyll and the Isles.